

RECEIVED

FEB 20 2002

16415
TECH CENTER 16002980

FULBRIGHT & JAWORSKI L.L.P.

A REGISTERED LIMITED LIABILITY PARTNERSHIP

600 CONGRESS AVENUE, SUITE 2400

AUSTIN, TEXAS 78701

TELEPHONE: 512/474-5201
FACSIMILE: 512/536-4598

WRITER'S INTERNET ADDRESS:
RHANSON@FULBRIGHT.COM

WRITER'S DIRECT DIAL NUMBER:
512/536-3085



HOUSTON
WASHINGTON
AUSTIN
SAN ANTONIO
DALLAS
NEW YORK
LOS ANGELES
MINNEAPOLIS
LONDON
HONG KONG

February 7, 2002

09/989,739
#6 2/1638
Helmer

FILE: DEKM:177US

CERTIFICATE OF MAILING
37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date below:

February 7, 2002

Date

Robert E. Hanson

Commissioner for Patents
Washington, DC 20231

RE: SN 09/989,739 "MAIZE CYTOPLASMIC GLUTAMINE SYNTHETASE PROMOTER COMPOSITIONS AND METHODS FOR USE THEREOF" - Brendan Hinchey and Hee-Sook Song (Client Reference: 38-15[52212]US00)

Sir:

Enclosed for filing in the above-referenced patent application is an Information Disclosure Statement, Form PTO-1449, and references (A1, C1-C34).

No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to the enclosed materials, the Commissioner is hereby authorized to deduct said fees from Fulbright & Jaworski Deposit Account No.: 50-1212/10111172/REH.

Please date stamp and return the enclosed postcard evidencing receipt of these materials.

Respectfully submitted,

Robert E. Hanson
Reg. No. 42,628

REH/cmb

Encl: as noted

RECEIVED

TENT
FEB 20 2002

TECH CENTER 1600/2900

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Brenda Hinchey
Hee-Sook Song



Serial No.: 09/989,739

Filed: November 20, 2001

For: MAIZE CYTOPLASMIC GLUTAMINE
SYNTHETASE PROMOTER
COMPOSITIONS AND METHODS FOR
USE THEREOF

Group Art Unit: 1645

Examiner: Unknown

Atty. Dkt. No.: DEKM:177US/REH

CERTIFICATE OF MAILING
37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date below:

February 7, 2002

Date


Robert E. Hanson

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R. §§ 1.97(g), (h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be

an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is hereby authorized to deduct said fees from Fulbright & Jaworski Deposit Account No.: 50-1212/10111172/REH.

Applicants respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,



Robert E. Hanson
Reg. No. 42,628
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.
600 Congress Avenue, Suite 2400
Austin, Texas 78701
(512) 474-5201

Date: February 7, 2002

RECEIVED

FEB 20 2002

Page 1

Form PTO-1449 (modified)

List of Patents and Publications for Applicant

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Atty. Docket No.
DEKM:177US/REHSerial No.
09/989,739Applicant
Brendan Hinchey
Hee-Sook SongFiling Date:
November 20, 2001Group:
1645U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 1

U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A1	5,391,725	2/21/95	Coruzzi <i>et al.</i>	536	24.1	6/13/91

Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C1 /	Altschul <i>et al.</i> , "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs," <i>Nucleic Acids Res.</i> , 25:3389-3402, 1997.
	C2 ✓	Brears <i>et al.</i> , "A promoter sequence involved in cell-specific expression of the pea glutamine synthetase GS3A gene in organs of transgenic tobacco and alfalfa," <i>Plant J.</i> , 1(2):235-244, 1991.
	C3 ✓	Coruzzi, "Molecular approaches to the study of amino acid biosynthesis in plants," <i>Plant Science</i> , 74:145-155, 1991.
	C4 ✓	Dubois <i>et al.</i> , "Localization of tobacco cytosolic glutamine synthetase enzymes and the corresponding transcripts show organ- and cell-specific patterns of protein synthesis and gene expression," <i>Plant Mol. Biol.</i> , 31:803-817, 1996.
	C5 ✓	Edwards <i>et al.</i> , "Cell-specific expression in transgenic plants reveals nonoverlapping roles for chloroplast and cytosolic glutamine synthetase," <i>Proc. Natl. Acad. Sci. USA</i> , 87:3459-3463, 1990.
	C6 ✓	Eisenberg <i>et al.</i> , "Structure-function relationships of glutamine synthetases," <i>Biochimica et Biophysica Acta</i> , 1477:122-145, 2000.
	C7 /	Ellerstrom <i>et al.</i> , "Functional dissection of a napin gene promoter: identification of promoter elements required for embryo and endosperm-specific transcription," <i>Plant Mol. Biol.</i> , 32:1019-1027, 1996.

25112085.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

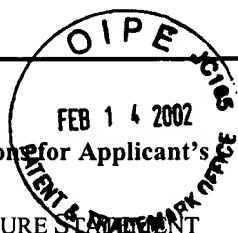
INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)

Form PTO-1449 (modified)

List of Patents and Publications for Applicant's

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Atty. Docket No.
DEKM:177US/REHSerial No.
09/989,739Applicant
Brendan Hinchey
Hee-Sook SongFiling Date:
November 20, 2001Group:
1645U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 1

RECEIVED
FEB 20 2002
TECH CENTER 1600/2900

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C8 ✓	Forde <i>et al.</i> , "Two glutamine synthetase genes from <i>Phaseolus vulgaris</i> L. display contrasting developmental and spatial patterns of expression in transgenic <i>Lotus corniculatus</i> plants," <i>Plant Cell</i> , 1:391-401, 1989.
	C9 ✓	Forde <i>et al.</i> , "Nuclear factors interact with conserved A/T-Rich elements upstream of a nodule-enhanced glutamine synthetase gene from French bean," <i>Plant Cell</i> , 2:925-939, 1990.
	C10 ✓	Gallusci <i>et al.</i> , "Differences in cell type-specific expression of the gene Opaque 2 in maize and transgenic tobacco," <i>Mol. Gen. Genet.</i> , 244:391-400, 1994.
	C11 ✓	GenBank Accession Number X65927
	C12 ✓	Hamilton <i>et al.</i> "Dissection of a pollen-specific promoter from maize by transient transformation assays," <i>Plant Mol. Biol.</i> , 18:211-218, 1992.
	C13 ✓	Jeon <i>et al.</i> , "Isolation and characterization of an anther-specific gene, RA8, from rice (<i>Oryza sativa</i> L)," <i>Plant Mol. Biol.</i> , 39:35-44, 1999.
	C14	Kyozuka <i>et al.</i> , "Promoter elements required for development expression of the Maize Adh1 gene in transgenic rice," <i>Plant Cell</i> , 6:799-810, 1994.
	C15	Lam <i>et al.</i> , "The molecular-genetics of nitrogen assimilation into amino acids in higher plants," <i>Ann. Rev. Plant Physiol. Plant Mol Biol.</i> , 47:569-593, 1996.
	C16 ✓	Li <i>et al.</i> , "Differential expression of six glutamine synthetase genes in <i>Zea mays</i> ," <i>Plant Mol. Biol.</i> , 23:401-407, 1993.
	C17 ✓	Lyznik <i>et al.</i> , "A possible role of pedicel-placento-chalazal tissue in the amino acids supply to the developing maize endosperm," <i>Maydica</i> , 27:191-198, 1982.
	C18 ✓	McGrath and Coruzzi, "A gene network controlling glutamine and asparagine biosynthesis in plants," <i>Plant Journal</i> , 1(3):275-280, 1991.
	C19	Muhitch <i>et al.</i> , "Immunolocalization of a unique form of Maize kernel glutamine synthetase using a monoclonal antibody," <i>Plant Physiol.</i> , 107:757-763, 1995.
	C20 ✓	Muhitch, "Glutamine synthetase activity of the endosperm, embryo and pedicel-placento-chalazal regions of developing maize (<i>Zea mays</i>) kernels," <i>Physiol. Planta.</i> , 74:176-180, 1988.
	C21 ✓	Muhitch, "In vitro metabolism of L-aspartate by maize kernels," <i>Phytochemistry</i> , 32(5):1125-1130, 1993.

25112085.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Page 3 of 3
 FEB 20 2002
 TECH CENTER 1600/2900

RECEIVED

Form PTO-1449 (modified)		Atty. Docket No. DEKM:177US/REH		Serial No. 09/989,739	
List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant Brendan Hinchey Hee-Sook Song			
		Filing Date: November 20, 2001		Group: 1645	
U.S. Patent Documents See Page 1		Foreign Patent Documents See Page 1		Other Art See Page 1	

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C22 ✓	Muhitch, "Purification and characterization of two forms of glutamine synthetase from the pedicel region of Maize (<i>Zea mays</i> L.) kernels," <i>Plant Physiol.</i> , 91:868-875, 1989.
	C23 ✓	Oliveira <i>et al.</i> , "Metabolite and light regulations of metabolism in plants: lessons form the study of a single biochemical pathway," <i>Brazilian J. Med. And Biol. Res.</i> , 34:567-575, 2001.
	C24 ✓	Porter <i>et al.</i> , "Assimilate unloading from Maize (<i>Zea mays</i> L.) pedicel tissues," <i>Plant Physiol.</i> , 85:558-565, 1987.
	C25 ✓	Rastogi <i>et al.</i> , "The Maize glutamine synthetase GS ₁₋₂ gene is preferntially expressed in kernel pedicels and is developmentally-regulated," <i>Plant Cell. Physiol.</i> , 39(4):443-446, 1998.
	C26 ✓	Roberts <i>et al.</i> , "Gametophytic and sporophytic expression of an anther-specific Arabidopsis thaliana gene," <i>Plant J.</i> , 3(1):111-120, 1993.
	C27 ✓	Sakakibara <i>et al.</i> , "Molecular identification and characterization of cytosolic isoforms of glutamine synthetase in Maize roots," <i>J. Biol. Chem.</i> , 271(47):29561-29568, 1996.
	C28 ✓	Sakakibara <i>et al.</i> , "Molecular cloning of the family of glutamine synthetase genes form Maize: expression of genes for glutamine synthetase and ferredoxin-dependent glutamate synthase in photosynthetic and non-photosynthetic tissues," <i>Plant Cell Physiol.</i> , 33(1):49-58, 1992.
	C29	Sakamoto <i>et al.</i> , Three cDNA sequences coding for glutamine synthetase polypeptides in <i>Oryza sativa</i> L., " <i>Plant Mol. Biol.</i> , 13:611-614, 1989.
	C30 ✓	Stitt, "Nitrate regulation of metabolism and growth," <i>Curr. Op. Plant Biol.</i> , 2:178-186, 1999.
	C31 ✓	Stromvik <i>et al.</i> "A novel promoter from soybean that is activate in a complex developmental pattern with and without its proximal 650 base pairs," <i>Plant Mol. Biol.</i> , 41:217-231, 1999.
	C32 ✓	Tingey <i>et al.</i> , "Glutamine synthetase genes of pea encode distinct polypeptides which are differentially expressed in leaves, roots and nodules," <i>EMBO J.</i> , 6(1):1-9, 1987.
	C33 ✓	Twell <i>et al.</i> , "Pollen-specific gene expression in transgenic plants: coordinate regulation of two different tomato gene promoters during microsporogenesis," <i>Development</i> , 109:705-713, 1990.
	C34 ✓	Van der Meer <i>et al.</i> , "Promoter analysis of the chalcone synthase (chsA) gene of <i>Petunia hybrida</i> : a 67 bp promoter region directs flower-specific expression," <i>Plant Mol. Biol.</i> , 15:95-109, 1990.

25112085.1

EXAMINER:	DATE CONSIDERED:
EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	